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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,957	10/16/2001	Brian James Misek	10010215-1	7262

7590 10/02/2003
AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

LUU, THANH X

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 10/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,957

Applicant(s)

MISEK, BRIAN JAMES

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-18 in Paper No. 8 is acknowledged.

Claims 1-18 are currently pending.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the system implemented in a scanner application, an optical mouse application, a video game controller application, a movement encoder application, a near field application and a far field application must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 2, 4, 6, 7, 10, 11, 13 are objected to because of the following informalities:

In claims 2 and 10, "the value" lacks proper antecedent basis.

In claim 4, "the voltage value" lacks proper antecedent basis.

In claims 6 and 7, "the amplifier" lacks proper antecedent basis.

In claim 11, "the single amplifier" lacks proper antecedent basis.

In claim 13, "the first sampling capacitor" lacks proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5, 8-14, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Krymski (U.S. Patent 6,222,175).

Regarding claims 1-5, 8-13, Krymski discloses (see Figures 3 and 4) a system, comprising: an array of photocells (50) that are arranged in rows and columns; and a sequential readout circuit (42) that is coupled to one column of the array at a time and that processes one photocell at a time. Krymski further discloses (see Figures 3 and 4) the readout circuit sequentially reads out a value of the photocells one photocell at a time and (see column 4, lines 25-30) determines a difference between a final integration light value and a reset value for each photocell in a time sequential manner. Krymski also discloses (see column 4, lines 25-30) a sample and hold circuit that holds a voltage value of a photocell for each column. In addition, Krymski discloses (see Figure 4) the photodiode circuit (50) as claimed. Krymski also discloses (see column 1, lines 10-15) the system implemented in a far field application. Krymski further discloses (see Figure

4) an amplifier (67) that includes a first input (-); an output; and an integration capacitor (C3) having a first electrode for coupling to the first input and a second electrode for coupling to the output of the amplifier; the amplifier includes a charge transfer mode and a unity gain mode (when M11 is on).

Regarding claims 10-14, 17 and 18, Krymski discloses (see Figures 3 and 4) a sequential readout circuit for coupling an array of photocells, wherein the array includes at least a first row, a first column, a second column, a first photocell disposed in the first row and the first column, and a second photocell disposed in the first row and second column, comprising: an amplifier (67 or 68) for reading out a value of the photocells one at a time; a first switch (M4 or M6 or M9 or M10) for selectively coupling the amplifier to the first column; and a second switch (M4 or M6 or M9 or M10; for the second column (not shown)) for selectively coupling the amplifier to the second column. Krymski further discloses (see Figure 4) the amplifier determines the difference between a reset voltage and a light voltage for the first and second photocell in a time sequential manner. Krymski also discloses (see column 4, lines 25-30) a sample and hold circuit that holds a voltage value of a photocell for each column and the sample and hold circuit includes a capacitor (C1) and a transistor (M4 or M7) coupled to the capacitor. In addition, Krymski discloses (see Figure 4) the photodiode circuit (50) as claimed. Krymski also discloses (see column 1, lines 10-15) the system implemented in a far field application. Krymski further discloses (see Figure 4) an amplifier (67) that includes a first input (-); an output; and an integration capacitor (C3) having a first electrode for coupling to the

first input and a second electrode for coupling to the output of the amplifier; the amplifier includes a charge transfer mode and a unity gain mode (when M11 is on).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 7, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krymski.

Regarding claims 6, 7, 15 and 16, Krymski discloses the claimed invention as set forth above. Krymski does not specifically disclose a level shifting or gain manipulation circuit as claimed. However, level shifting and gain manipulation circuits coupled to amplifiers are well known in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide such circuits in the apparatus of Krymski to improve dynamic range and improve detection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.


Application/Control Number: 09/981,957
Art Unit: 2878

Page 6

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta, can be reached on (703) 308-4852. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl
September 15, 2003



Thanh X. Luu
Patent Examiner